



INDUSTRIAL PRODUCTS CATALOGUE



COMPO WAF-18



is a flexible, solid woven asbestos free man made mineral fibre (MMF) based friction material made from yarn, spun around brass wire. It is solely intended for use under Dry conditions. WAF 18 has a medium / high co-efficient of friction with moderate temperature and wear resistance. It is available in Roll form only. Special shapes can easily be cut from it. Forming can be made easier by placing the material in an oven at a maximum temperature of 100°C (212°F). WAF 18 is supplied In unground condition.

APPLICATION :-

Industrial Band, Drum Brakes Linings, plate and cone clutch Linings and also for certain Heavy Road Transport Vehicles and Tractors.

TECHNICAL DATA :-

Co-efficient of Friction for Design Purpose : 0.35/0.50

RECOMMENDED OPERATING TEMPERATURE :-

Maximum Operating Temperature : 260°C
 Maximum Continuous Operating Temperature : 125°C
 Unit Pressure : 10-100 lb/in² (1-7Kg/Cm²)
 Maximum Velocity : 60 ft/sec (18 m/sec)
 (Possible to exceed for shorter period)

NOTE :-

Note: The continuous temperature quoted is for constant slip condition. For intermittent applications, Peak temperature of 160°C is acceptable for long period.

RECOMMENDED MATING SURFACE :-

Good Quality fine grain Pearlitic Cast Iron. Cast steel is not suitable as mating surface but forged or cold rolled steel with a Brinell hardness of 200 or more may be used.

MACHINING DATA :-

High Speed Steel tools are recommended for use with this material.

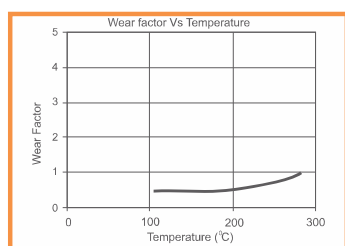
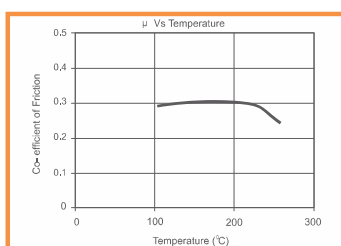
SIZE RANGE :-

Thickness - 19.0 mm(max)
 Width - 330 mm (max)
 Standard length per roll - 10 metres

TYPICAL PHYSICAL PROPERTIES :-

Density : 1.40/1.60
 Friction : 0.35-0.50
 Wear by weight (%) : 10% (max)
 Wear by Thickness (%) : 10% (max)
 Ultimate Compression Kg/cm² : 550 Kg/cm²
 Maximum Temperature (°C) : 260
 Maximum Continuous Operating Temperature (°C) : 125

TYPICAL FRICTION / WEAR PROPERTIES



COMPO AF-SUPER



GENERAL DESCRIPTION :-

Compo Super (non-asbestos Zinc)/Brass/Copper is a semi flexible, high metallic solid woven, non-asbestos brake lining manufactured from glass fibre yarn with a zinc wire insertion. Due to higher % metal, it works smoothly at higher temperature. No degradation/slippage during operation. Compo Super is available in roll form. Being a semi flexible material, it is possible to form it to radius When fitting it. The impregnant does not soften when heated & large changes should not be attempted.

APPLICATION :-

It is used as segments or as band brakes in elevators, cranes, winches, hoist, drop hammers, heavy earth moving equipments.

TECHNICAL DATA :-

Co-eff. of Friction (Mue) : 0.35/0.50

PHYSICAL PROPERTIES :-

Specific Gravity : 1.35/1.55
 % Ash Content : 55/70
 % Acetone Extraction : 5.00 (Max.)
 Ult. Compression Strength : 550 kg/cm²
 min

RECOMMENDED OPERATING TEMPERATURE :-

Max. Operating Temp. : 260°C
 Max. Continuous Temp. : 150°C

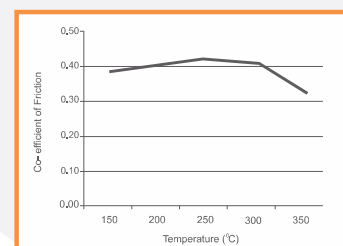
RECOMMENDED MATING SURFACES :-

Good quality fine grained alloy cast iron & steel with Brinell hardness of 150 or more may be used.

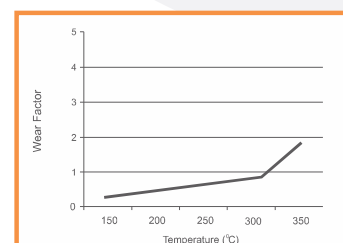
MACHINING DETAILS :-

Carbide tools/drills are recommended for use with this material.

TYPICAL FRICTION PROPERTIES



TYPICAL WEAR PROPERTIES



COMPO CR



is a flexible moulded, non-metallic friction material, light grey or brown in color and having a random fibre asbestos base. It is available in roll and strip form and is suitable for use under dry operating conditions only (i.e. it is not suitable for use in oil).

Although having a high friction level, CR-2 is silent in operation with excellent temperature and wear resistance. Being ground on both surfaces, CR-2 is Perfect for bonding on either surface as well as for attaching with rivets.

APPLICATIONS :-

Scooter and moped drum brakes and clutches, automotive drum brakes, industrial drum brakes, industrial band brakes, excavator brake and clutch band linings.

TECHNICAL DATA :-

Co-efficient of Friction for Design Purpose (see curve) : 0.45 (dry)

PHYSICAL PROPERTIES :-

Data based on standard test methods:

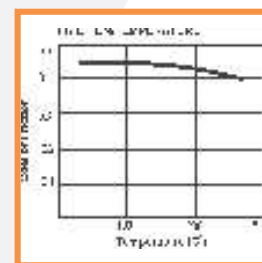
Specific gravity	: 2.0
Ultimate tensile strength	: 140 kg/cm ²
Ultimate compressive strength	: 566 kg/cm ²
Ultimate shear strength	: 77 kg/cm ²
Rivet holding capacity	: 527 kg/cm ²
Share hardness "D"	: 50-70

RECOMMENDED OPERATING TEMPERATURE :-

Unit pressure	: 1.0-7 kg/cm ²
Maximum velocity	: 18 m/sec
Maximum operating temperature	: 350°C
Maximum continuous temperature	: 150°C

NOTE :-

The continuous temperature quoted is for constant slip conditions. For intermittent drum brake applications, bulk temperatures of 250°C are acceptable for long periods.



BONDING :-

CR may be bonded with any of the established bonding adhesive although for the best results, thermosetting adhesives should be used. CR-2 is supplied ground on both surfaces and so may be bonded on either surface.

RECOMMENDED MATING SURFACE :-

Good quality fine grained pearlitic cast iron. Cast steel is not suitable as a mating surface but forged or cold rolled steel with a Brinell hardness of 200 or more may be used.

COMPO HCAF-10 | HCAF-11

is a Non Asbestos Flexible Roll Lining. It is a moulded product having short filaments of Synthetic man made mineral fibers and organic fibers with highly thermally stable Synthetic Rubber (Styrene- Butadiene / Acrylonitrile Butadiene Rubber) as a binder and fused in a matrix which contributes to the strength and performance in terms of Friction/Wear properties. Suitable for use in Band Brakes, Moped and Scooter Brakes and two-wheeler Clutch application. It is available in both liner and roll form and suitable for use under dry operating conditions only (it is not suitable for use in oil). Owing to its flexibility, it is easy to form to any radius and accommodates itself on the shoe. Also supplied with wire back reinforcement. It is available in Dark Grey and Brown Color.

APPLICATION (HCAF-10):-

It is used in Band Brakes, Moped and Scooter Brake applications and Clutch applications.

TECHNICAL DATA :-

Co-efficient of Friction for Design Purpose

RECOMMENDED OPERATING TEMPERATURE :-

Maximum Operating Temperature	: 300°C
Maximum Continuous Operating Temperature	: 150°C
Maximum Continuous Operating Pressure	: 175°C
(Possible to exceed for shorter period)	

TYPICAL PHYSICAL PROPERTIES :-

Density	: 1.9
Hardness :	70 in Shore D
Heat Swell @ 200°C	: 0.18 mm
Water Swell	: 0.02 mm
Ultimate Compression Strength Kg/cm2	: 250
Maximum Continuous Operating Temperature (°C)	: 150
Classification as per SAE J661a	: GG

TYPICAL CHEMICAL PROPERTIES :-

Acetone Extract	: 1.5%
Loss on Ignition	: 30.0%

APPLICATION (HCAF-11):-

It is used in Drum Brakes, Light Trucks and Commercial Vehicles, Band Brakes, Moped, Scooter, and Motor Cycle Brake applications.

HCAF-10

: 0.48 (dry condition)

HCAF-11

: 0.42 (dry condition)

Maximum Operating Temperature	: 350°C
Maximum Continuous Operating Temperature	: 200°C
Maximum Continuous Operating Pressure	: 225°C

Density	: 1.98
Hardness :	58 in Shore D
Heat Swell @ 200°C	: 0.14 mm
Water Swell	: 0.03 mm
Ultimate Compression Strength Kg/cm2	: 225
Maximum Continuous Operating Temperature (°C)	: 150
Classification as per SAE J661a	: GF

Acetone Extract	: 1.85%
Loss on Ignition	: 31.0%

HC AF 10/11 are supplied with wire back reinforcement. They are available in Dark Grey and Brown Colour. So the rest of the properties are same.

RECOMMENDED MATING SURFACE :- Good Quality Fine Grain pearlitic cast Iron, Forged or Cold Roll Steel also can be used.

BRINELL HARDNESS OF MATING SURFACE :- 200 minimum or more can be used.

MACHINING DATA OF MATING SURFACE :- High Speed steel tools are satisfactory for use on this material.

BONDING :- HC AF 10/11 can be bonded with any of the established

Bonding adhesives, although for best results, thermosetting adhesives (rubber base / phenolic powder resin base) should be used. The bonding temperature with aluminium diecasting and mildsteel material is 180°C to 240°C for 45 minutes to 1 Hour using static / conveyor hot air circulating oven. Proper preparation of the bonding surface like shot blasting /vapour degreasing and adhesive coating is required.

HC AF 10/11 is supplied ground on both the surfaces, so that it can be bonded on either surface as required without any further preparation.

SIZE RANGE :-

Width 15mm to maximum 120mm
Thickness 5mm to 12mm.